

ABSTRACT

A temperature detection circuit is provided inside a chip which is the same as a CPU, and it comprises a temperature detection part comprised of a PMOS transistor and an NMOS transistor connected in series between a power supply potential VDD and a grounding potential, wherein a stray capacitance between a junction (live node) between the PMOS transistor and the NMOS transistor and the grounding potential is charged with a current differential between the off leak current of the PMOS transistor and the off leak current of the NMOS transistor, thereby changing the potential of the live node, and when the changed potential reaches a level of a threshold value in a given period of time, it is decided that the temperature of the CPU reaches a set temperature.